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## Changes Spark Interest in Sustainable Urban Places: But How Do We Identify and Support Them?

John R. Nolon  
*Pace Law School*

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## CHANGES SPARK INTEREST IN SUSTAINABLE URBAN PLACES: BUT HOW DO WE IDENTIFY AND SUPPORT THEM?

*John R. Nolon\**

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\* The author is a Professor of Law at Pace Law School, Counsel to its Land Use Law Center, and has served as Visiting Professor at the Yale School of Forestry and Environmental Studies since 2001. Sincere thanks to John Dalo, third year Pace Law student, for his assistance with this Article.

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## INTRODUCTION

Changes in climatic and demographic trends are sparking renewed interest in cities generally and sustainable communities particularly. On the one hand, residents and workers in denser, mixed-use neighborhoods served by transit have half the carbon footprint of those in spread-out suburban areas. On the other hand, many of the smaller households that characterize the nation's growing population prefer to live in precisely those compact, mixed-use neighborhoods. In New York, these changes align with several new state policies that encourage cities and towns to reduce carbon emissions, reduce vehicle travel, create sustainable buildings and neighborhoods, and preserve the landscapes that sequester nearly twenty percent of the nation's carbon emissions. These three shifts—climatic, demographic, and political—create opportunities for older cities and towns to revitalize themselves, while creating new roles for smaller, rural communities. After describing these trends, this Article reviews the nascent movement to certify sustainable communities, noting that existing programs measure mainly the behavior of municipalities as building and vehicle fleet owners and educators of the public. These certification systems need to expand to measure how well local governments use their legal authority to control private sector development so that the millions of new homes and billions of square feet of commercial buildings needed to serve the growing population are sustainable. This Article describes the creation of a certification system and policy initiative that measure and reward municipal planning, regulation, and incentives that ensure the sustainability of future development in areas that should host much of the expanding population as well as those areas where conservation should predominate.

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## I. THE STEADY EVOLUTION OF URBAN LAW

### A. From Public Housing and Urban Renewal to Sustainable Development

New York's urban policy arguably began in 1926 with the passage of the State Housing Law.<sup>1</sup> At the federal level, the beginning can be pegged to the adoption of the National Housing Act of 1934.<sup>2</sup> Thus began nine decades of experimenting with programs to create viable human settlements in the United States.<sup>3</sup> Congress launched urban renewal under the Housing Act of 1954.<sup>4</sup> The next year, the New York state legislature adopted the Mitchell-Lama Program offering privately organized development companies subsidies to provide middle-income housing.<sup>5</sup> About the time that the first issue of the *Fordham Urban Law Journal* was published,<sup>6</sup> New York was creating a large-scale regional planning organization with the passage of the Adirondack Park Act of 1972.<sup>7</sup> Two years later, Congress consolidated numerous urban programs that had enjoyed limited success into the Community Development Block Grant program, allocating funds on a formula basis to large cities and channeling funds to small cities through state agencies or inter-municipal consortia.<sup>8</sup>

Tracking the ebb and flow of federal and state policy regarding housing, urban redevelopment and planning, mortgage finance, and infrastructure funding would require volumes, the study of which would reveal constant attempts to stay current with shifts in demographic patterns, economic trends, environmental challenges,

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1. See generally 1926 N.Y. Laws 823; N.Y. UNCONSOL. LAW §§ 2251–2343 (McKinney 1936) (recodified in 1939 as N.Y. PUB. HOUS. LAW §§ 1-228 (McKinney 1939)).

2. See generally *HUD Historical Development*, U.S. DEP'T HOUSING & URBAN DEV. (May 18, 2007), <http://www.hud.gov/offices/adm/about/admguides/history.cfm>.

3. See generally *id.*

4. See *id.*

5. See N.Y. PRIV. HOUS. FIN. LAW §§ 70–97 (McKinney 2012).

6. See Louis J. Lefkowitz, *Jamaica Bay: An Urban Marshland in Transition*, 1 FORDHAM URB. L.J. 1 (1972).

7. See N.Y. ST. ADIRONDACK PARK AGENCY, PLANNING FOR THE ADIRONDACK PARK FOREST PRESERVE (1999), available at <http://www.apa.ny.gov/Documents/Flyers/Slmp4foldweb.pdf>.

8. See *Community Development Laws and Regulations*, U.S. DEP'T HOUSING & URBAN DEV. (Apr. 2, 2013), [http://portal.hud.gov/hudportal/HUD?src=/program\\_offices/comm\\_planning/communitydevelopment/rulesandregs](http://portal.hud.gov/hudportal/HUD?src=/program_offices/comm_planning/communitydevelopment/rulesandregs); see also 42 U.S.C. § 5303 (2006).

and public opinion. Today, government officials at the federal and state level are working to adapt to new challenges.<sup>9</sup> Notable initiatives include the cooperative efforts of the United States Department of Housing and Urban Development (HUD), Environmental Protection Agency (EPA), and Department of Transportation (DOT) to create sustainable regions through the Sustainable Communities Initiative<sup>10</sup> and New York State's recently adopted Cleaner, Greener Communities program which is funding the creation of sustainability plans for ten newly established regions that will guide the expenditure of state funds obtained from the auction of emission allowances under the Regional Greenhouse Gas Initiative.<sup>11</sup>

Urban law has consistently tackled tough issues. Today, however, the stakes are as high as they have ever been as local, state, and federal governments face the sobering reality of climate change; they are struggling to lighten their carbon footprints, create safe and resilient settlements, and use diminished finances as wisely as possible. Changes in climatic and demographic trends are sparking renewed interest in cities generally and sustainable communities particularly.<sup>12</sup> On the one hand, residents and workers in denser, mixed-use neighborhoods served by transit have half the carbon footprint of those in spread-out suburban areas.<sup>13</sup> On the other hand, many of the smaller households that characterize the nation's growing

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9. *See infra* Part II.

10. *Sustainable Housing and Communities*, U.S. DEP'T OF HOUSING & URB. DEV., [http://portal.hud.gov/hudportal/HUD?src=/program\\_offices/sustainable\\_housing\\_communities](http://portal.hud.gov/hudportal/HUD?src=/program_offices/sustainable_housing_communities) (last visited Oct. 18, 2013).

11. *See infra* notes 61–65.

12. *See* Arthur C. Nelson & Robert Lang, *The Next 100 Million*, AM. PLANNING ASS'N (Jan. 2007), <http://www.law.du.edu/images/uploads/rmlui/conferencematerials/2008/thursday/Americaat400/TheNext100Million.pdf>; *see also* Christopher Leinberger, *Walkable Urbanism Combats Climate Change*, ECOBUILDINGPULSE (Nov. 6, 2012), <http://www.ecobuildingpulse.com/green-communities/walkable-urbanism-combats-climate-change.aspx?page=1>.

13. *See* CITY OF NEW YORK, PLANYC: A GREENER, GREATER NEW YORK, 135 (2007), (reporting that the average resident of New York City produces 7.1 metric tons of CO<sub>2</sub> annually, compared with a national average of 24.5). The author adjusted the New York City number upward to 12.5 to approximate the lesser amount of emissions in higher density, transit oriented developments, and has used 24.5 metric tons as the nationwide average of CO<sub>2</sub> emitted due to car travel and buildings occupied by Americans. If the nationwide average is 24.5 and urban dwellers emit 12.5 metric tons per capita, then 100 million new residents will emit 1200 trillion fewer metric tons. This calculation is designed intentionally as a provocative example to emphasize the positive effects of policies that foster urban settlements.

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population prefer to live in precisely those compact, mixed-use neighborhoods.<sup>14</sup>

In New York, these changes align with several new state policies that encourage cities and towns to lower carbon emissions, reduce vehicle travel, create sustainable buildings and neighborhoods, and preserve the landscapes that sequester nearly twenty percent of the nation's carbon emissions.<sup>15</sup> These three shifts—climatic, demographic, and political—create opportunities for older cities and towns to revitalize themselves, while creating new roles for smaller, rural communities.

After describing these trends, this Article reviews the nascent movement to certify sustainable communities, noting that existing programs measure mainly the behavior of municipalities as building and vehicle fleet owners and educators of the public. These certification systems need to expand to measure how well local governments use their legal authority to control private sector development so that the millions of new homes and billions of square feet of commercial buildings needed to serve the growing population are sustainable. The Article begins with an examination of what such a certification system would measure and how it would be implemented. The objective is to outline the general contours of a program that measures and rewards municipal planning, regulation, and incentives that ensure the sustainability of future development in areas that should host the expanding population and the conservation of areas where development should not occur.

## B. Why Sustainable Communities Are Important<sup>16</sup>

### 1. Climate Change Mitigation

About eighty-five percent of U.S. greenhouse gas (GHG) emissions are carbon dioxide, much of which is caused by the buildings and land use patterns that local land use plans and regulations shape and create.<sup>17</sup> Vehicle trips and miles travelled have increased dramatically in the past three decades as development

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14. See Nelson & Lang, *supra* note 12, at 4–6.

15. See *infra* notes 44–71.

16. See John R. Nolon, *Shifting Paradigms Transform Environmental and Land Use Law: The Emergence of the Law of Sustainable Development*, 24 FORDHAM ENVTL. L. REV. 242 (2013).

17. *Overview of Greenhouse Gases*, U.S. EPA, <http://www.epa.gov/climatechange/ghgemissions/gases/co2.html> (last visited Nov. 5, 2013).

patterns have spread out, consuming land at much greater rates than the rate of population growth.<sup>18</sup> Today, buildings emit thirty-nine percent of the total amount of CO<sub>2</sub> released in the United States.<sup>19</sup> Personal vehicles are responsible for seventeen percent of total emissions.<sup>20</sup> Current undeveloped landscapes sequester fifteen percent of CO<sub>2</sub> emissions.<sup>21</sup>

The Census Bureau reports that the nation's population will increase by 100 million by mid-century, which will require millions of new homes and billions of square feet of non-residential development.<sup>22</sup> "Two-thirds of the buildings in use in 2050 will be built between now and then. How buildings are constructed, how they are arranged on the land, and how human settlement patterns are shaped is critical to our success in curbing the causes of climate change and creating a livable human environment."<sup>23</sup> Because local governments control land development through legally adopted land

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18. REID EWING ET AL., GROWING COOLER: EVIDENCE ON URBAN DEVELOPMENT AND CLIMATE CHANGE 2-3 (2008) ("Population growth has been responsible for only a quarter of the increase in vehicle miles driven over the last couple of decades. A larger share of the increase can be traced to the effects of a changing built environment . . .").

19. EPA, BUILDINGS AND THEIR IMPACT ON THE ENVIRONMENT: A STATISTICAL SUMMARY 2, available at <http://www.epa.gov/greenbuilding/pubs/gbstats.pdf>.

20. Elisa Dumitrescu et al., *Cleaner, More Efficient Vehicles: Reducing Emissions in Central and Eastern Europe* 23 (Global Fuel Econ. Initiative, Working Paper 3/10, 2010), available at [http://www.unep.org/transport/PCFV/PDF/CEE\\_conferenceeport.pdf](http://www.unep.org/transport/PCFV/PDF/CEE_conferenceeport.pdf).

21. JESSICA SPRAJCAR, PA. DEP'T OF CONSERVATION & NATURAL RESOURCES, CREATING SUSTAINABLE COMMUNITY PARKS AND LANDSCAPES: A GUIDE TO IMPROVING QUALITY OF LIFE BY IMPROVING NATURAL RESOURCES 6 (2010), available at [http://www.dcnr.state.pa.us/cs/groups/public/documents/document/d\\_000620.pdf](http://www.dcnr.state.pa.us/cs/groups/public/documents/document/d_000620.pdf).

22. The Census Bureau released national population projections, based on four different immigration scenarios. See *National Population Projections*, U.S. CENSUS BUREAU (Apr. 3, 2013), available at <http://www.census.gov/population/projections/data/national/2009/2009summarytables.html> (follow the "Low Net International Migration" hyperlink; then follow the "Table 1" hyperlink). The "Low Net International Migration Series" predicted that the population would be 402,320,000 by 2043 and would be 422,554,000 by 2050. See *id.* Between 2010 and 2030, it is projected that the private sector will add thirty-seven million new homes and seventy-six billion square feet of nonresidential construction to accommodate this growth and to replace obsolete buildings. ARTHUR C. NELSON, *RESHAPING METROPOLITAN AMERICA* 80 (2013).

23. MEG BYERLY ET AL., LAND USE LAW CTR. AT PACE UNIV. & U.S. GREEN BLDG. COUNCIL, TECHNICAL GUIDANCE MANUAL FOR SUSTAINABLE NEIGHBORHOODS 3 (2013), available at [http://www.usgbc.org/sites/defaultfiles/Technical%20Guid.%20Man.%20for%20Sust.%20Neighborhoods\\_2012\\_Part%20A\\_1f\\_web.pdf](http://www.usgbc.org/sites/defaultfiles/Technical%20Guid.%20Man.%20for%20Sust.%20Neighborhoods_2012_Part%20A_1f_web.pdf).

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use plans and regulations, they are integral players in the process of ensuring the sustainability of buildings and communities generally.

The addition of 100 million people translates into forty million new households, whose members will travel to live, work, and shop in new buildings provided for them, consuming energy on site and en route, and emitting CO<sub>2</sub> if they travel by car.<sup>24</sup> The construction and operation of new buildings, as well as the vehicle miles travelled by car for daily work, errands, and pleasure, will therefore account for a significant percentage increase in annual energy consumption and CO<sub>2</sub> emissions by mid-century. If this prospective building and traveling takes place in the spread-out settlement pattern that predominated twenty years ago, these new people will consume huge amounts of energy and emit enormous amounts of CO<sub>2</sub>. The importance of understanding the human settlement dimension of climate change mitigation could not be greater. The international community has agreed that atmospheric concentrations of carbon should be kept between 350 to 385 parts per million (ppm) to limit increases of global temperatures to no more than 1.5 to 2 degrees Centigrade.<sup>25</sup> In the spring of 2013, carbon dioxide levels passed the much-feared 400 ppm threshold.<sup>26</sup>

Sustainable development is the key to the future. Sustainable development law and practice, largely created by local governments, focuses on shaping land and economic development to impose a lighter impact on the environment, including, but not limited to, climate change mitigation and adaptation.<sup>27</sup> Sustainable development uses less material, avoids consuming wetlands or eroding watersheds, consumes less energy, emits less carbon dioxide, lessens stormwater runoff, reduces ground and surface water pollution, and creates

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24. One hundred million divided by an average household size of 2.5 results in forty million households. The average household size by 2039 could be smaller, resulting in more households and a demand for even more homes.

25. Hansen et. al, *Target Atmospheric CO<sub>2</sub>: Where Should Humanity Aim?* 2 OPEN ATMOSPHERIC SCI. J. 217–31 (2008), available at <http://benthamscience.com/open/toascj/articles/V002/217TOASCJ.pdf>.

26. See Justin Gillis, *Heat-Trapping Gas Passes Milestone, Raising Fears*, N.Y. TIMES, May 11, 2013, at A1 (“‘If you’re looking to stave off climate perturbations that I don’t believe our culture is ready to adapt to, then significant reductions in CO<sub>2</sub> emissions have to occur right away,’ said Mark Pagani, a Yale geochemist who studies climates of the past. ‘I feel like the time to do something was yesterday.’”).

27. See John R. Nolon & Patricia E. Salkin, *Integrating Sustainable Development Planning and Climate Change Management: A Challenge to Planners and Land Use Attorneys*, 63 PLAN. & ENVTL. L. 3 (2011).



healthier places for living, working, and recreating.<sup>28</sup> It is a key component of mitigating and adapting to climate change.

## 2. *Demographic and Market Shifts*

For a variety of reasons, the majority of the projected 100 million new Americans will be inclined to live in dynamic, walkable neighborhoods in urban areas.<sup>29</sup> Key among these shifts is the housing preference among the growing number of older people who currently live in single-family homes on individual lots. Today there are forty million senior citizens; by 2040 that number will swell to approximately eighty million.<sup>30</sup> As these seniors age, many will find single-family suburban living unsuitable, and seek to move into neighborhoods where goods, services, and entertainment are nearby—places where they can live independently and age in place.<sup>31</sup> Sixty percent of senior citizens prefer to rent rather than buy new homes when they move, increasing the demand for rental housing—very little of which was produced over the past twenty years.<sup>32</sup>

As a growing number of senior citizens offer their homes for sale, the supply of single-family homes available for purchase will increase,

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28. *See Id.*

29. *See generally* Nelson & Lang, *supra* note 12, at 4–6.

30. The Urban Land Institute's report, *America in 2013*, underscores the influence that growing demographic groups in the U.S.—particularly Generation Y, African Americans, and Latinos—will have on reshaping urban growth patterns by spurring more development of compact, mixed-use communities with reliable, convenient transit service. On the whole, the survey suggests that demand will continue to rise for infill residential development that is less car-dependent, while demand could wane for isolated development in outlying suburbs. The survey found that among all respondents, sixty-one percent said they would prefer a smaller home with a shorter commute over a larger home with longer commute. Fifty-three percent want to live close to shopping, fifty-two percent would prefer to live in mixed-income housing, and fifty-one percent prefer access to public transportation. *See* URBAN LAND INST., *AMERICA IN 2013, A ULI SURVEY OF VIEWS ON HOUSING, TRANSPORTATION, AND COMMUNITY* (2013); *see also* ADMIN. ON AGING, U.S. DEP'T OF HEALTH AND HUMAN SERVS., *A PROFILE OF OLDER AMERICANS: 2011*, at 1 (2011), available at [http://www.aoa.gov/Aging\\_Statistics/Profile/2011/docs/2011profile.pdf](http://www.aoa.gov/Aging_Statistics/Profile/2011/docs/2011profile.pdf); JEFFERY S. PASSEL & D'VERA COHN, PEW RESEARCH CTR., *U.S. POPULATION PROJECTIONS: 2005–2050*, at 10 (2008), available at <http://pewsocialtrends.org/files/2010/10/85.pdf>.

31. *See generally* Genevieve Giuliano, *Land Use and Travel Patterns Among the Elderly*, in TRANSP. RESEARCH BD., *TRANSPORTATION IN AN AGING SOCIETY: A DECADE OF EXPERIENCE* 192, 206 (2004).

32. *Is the 'Great Senior Sell-Off' Coming?*, DAILY REAL EST. NEWS (Apr. 1, 2013), <http://realtormag.realtor.org/daily-news/2013/04/01/great-senior-sell-coming>.

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while the demand shrinks.<sup>33</sup> Other newly forming households in the decades ahead will be composed of younger individuals and couples, mostly without children, who seek urban neighborhoods as well and are not inclined to purchase energy-consuming single-family homes involving long commutes to employment, entertainment, and services.<sup>34</sup> Between 2010 and 2020, ninety percent of the net gain in households will be among households without children.<sup>35</sup> This imbalance in supply and demand for single-family homes means that there will be over twenty million unwanted, large-lot, single-family houses on the market by 2025,<sup>36</sup> which will significantly reduce the market for newly constructed suburban single-family housing.<sup>37</sup>

These demographic trends are bolstered by economic realities. Subprime mortgages, involving low down payments, and flexible rate mortgages are a thing of the past.<sup>38</sup> Available mortgages today require a twenty percent down payment, cash available for closing costs, and strong credit ratings. These changes in the mortgage market mean households seeking to purchase housing will buy smaller homes or choose to rent because they lack the cash and credit needed to qualify for a loan to purchase. The cost of transportation from home to work is beginning to rival the cost of housing in many metropolitan markets for moderate and middle-income families, further propelling households toward neighborhoods with transit or ones that are closer to employment centers.<sup>39</sup>

These demographic changes mean that market forces will support the movement of future populations into urban settlements and away from single-family neighborhood living. The movement away from

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33. ROLF PENDALL ET AL., BIPARTISAN POLICY CTR., DEMOGRAPHIC CHALLENGES AND OPPORTUNITIES FOR U.S. HOUSING MARKETS 11–12 (2012), available at <http://www.urban.org/UploadedPDF/412520-Demographic-Challenges-and-Opportunities-for-US-Housing-Markets.pdf>.

34. See generally John R. Nolon, *The Land Use Stabilization Wedge Strategy: Shifting Ground to Mitigate Climate Change*, 34 WM. & MARY ENVTL. L. & POL'Y REV. 5–6 (2009); see also Robert Steuteville, *The Coming Housing Calamity*, NEW URB. NEWS, June 2011, at 6, available at [http://miplace.org/sites/default/files/Steuteville\\_ComingHousingCalamity.pdf](http://miplace.org/sites/default/files/Steuteville_ComingHousingCalamity.pdf).

35. See Steuteville, *supra* note 34, at 6.

36. See *id.*

37. See Nolon, *supra* note 34, at 11.

38. See Steuteville, *supra* note 34, at 6.

39. See JEFFREY LEJAVA, CTR. FOR HOUSING POLICY, LOSING GROUND: THE STRUGGLE OF MODERATE-INCOME HOUSEHOLDS TO AFFORD THE RISING COSTS OF HOUSING AND TRANSPORTATION (2012), available at [http://www.nhc.org/media/files/LosingGround\\_10\\_2012.pdf](http://www.nhc.org/media/files/LosingGround_10_2012.pdf).

single-family neighborhoods will have profound consequences in terms of land use planning and zoning at the local level in remote locations. Shifting ground toward more climate and energy-friendly urban living is not a matter of social engineering through policy and legal change; it is an economic inevitability. Consequently, legal strategies will reorient themselves toward creating transit-oriented developments, energy-efficient, mixed-use and compact building types, and sustainable neighborhoods.<sup>40</sup> Legal techniques for remediating distressed properties, developing workforce and equitable housing, and insinuating urban amenities and excellent design in redevelopment areas will be ascendant, as will methods of redeveloping countless commercial and office buildings and strips in older suburbs.

Two-thirds of the buildings in use in 2050 will be built between now and then.<sup>41</sup> Thus, immediate changes in land use laws and settlement patterns can achieve significant results in terms of sustainable development.<sup>42</sup> Communities can respond by adopting higher density, mixed-use zoning, implementing transit oriented development plans and ordinances, and using many other techniques to accommodate these changing market forces in a way that will reduce vehicle miles travelled and per capita GHG emissions.<sup>43</sup> Whether or not they adopt these techniques will determine the degree of sustainability of future private development. By creating a certification system that is capable of quantifying and measuring sustainable land use and development initiatives undertaken by local governments, communities will be better able to understand how to gauge their efforts at adapting to future trends, and ultimately how to become more efficient, sustainable and vibrant places to live. In addition, such a system enables state and federal agencies to effectively identify communities that deserve funding, support, and assistance for projects and policies geared toward implementing sustainable development and climate change management at the local level.

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40. *See id.* at 26–29.

41. EWING ET AL., *supra* note 18, at 8.

42. *See id.* at 5–7.

43. *See id.* at 14–16.

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## II. STATE AND FEDERAL SUSTAINABLE DEVELOPMENT STRATEGIES

Governmental programs at the state and federal level set the stage for creating a program that certifies the extent to which local governments regulate and incentivize private sector sustainable development. There are many examples of these types of programs in New York, several of which are reviewed here. The principles contained in these state initiatives align with federal policies evident in the Sustainable Communities Initiative, a partnership effort announced in 2009 by the federal departments of Housing and Urban Development, the Environmental Protection Agency, and the Department of Transportation.<sup>44</sup>

### A. New York State Programs

In the past few years, New York State's Governor, agencies, and legislature have adopted a number of policies and programs that discourage urban sprawl and promote the development of compact, mixed-use, walkable<sup>45</sup> neighborhoods served by transit and other infrastructure that allow communities to preserve current open space and natural resources. For the goals of these state policies to be realized, it is essential that state agencies be able to effectively identify communities whose land use plans and regulations further their objectives. A sustainable communities certification system should be integrated with state policies and funding, containing criteria for ranking municipalities that align with state initiatives.

An example of a state policy that could be integrated into a certification system is New York's Smart Growth Public Infrastructure Act.<sup>46</sup> The Act declares a

fiscally prudent state policy of maximizing the social, economic and environmental benefits from public infrastructure development through minimizing unnecessary costs of sprawl development including environmental degradation, disinvestment in urban and suburban communities and loss of open space induced by sprawl facilitated by the funding or development of new or expanded transportation, sewer and waste water treatment, water, education,

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44. Shelley Poticha et al., *Urban Update: Sustainable Communities*, WHITEHOUSE OFFICE URB. AFFAIRS (July 9, 2010), <http://www.whitehouse.gov/blog/2010/07/09/urban-update-sustainable-communities>.

45. See *What Makes a Neighborhood Walkable*, WALK SCORE, <http://www.walkscore.com/walkable-neighborhoods.shtml> (last visited Oct. 18, 2013).

46. N.Y. ENVTL. CONSERV. LAW § 6-0101 (McKinney 2012).

housing and other publicly supported infrastructure inconsistent with smart growth public infrastructure criteria.<sup>47</sup>

The legislature, in adopting this Act and indicating its purposes, embraced ten principles of smart growth as follows:

- (1) to advance projects for the use, maintenance or improvement of existing infrastructure;
- (2) to advance projects located in municipal centers;
- (3) to advance projects in developed areas or areas designated for concentrated infill development in a municipally approved comprehensive land use plan, local waterfront revitalization plan and/or brownfield opportunity area plan;
- (4) to protect, preserve and enhance the state's resources, including agricultural land, forests, surface and groundwater, air quality, recreation and open space, scenic areas, and significant historic and archaeological resources;
- (5) to foster mixed land uses and compact development, downtown revitalization, brownfield redevelopment, the enhancement of beauty in public spaces, diversity and affordability of housing in proximity to places of employment recreation and commercial development and the integration of all income and age groups;
- (6) to provide mobility through transportation choices including improved public transportation and reduced automobile dependency;
- (7) to coordinate between state and local government and intermunicipal and regional planning;
- (8) to participate in community based planning and collaboration;
- (9) to ensure predictability in building and land use codes; and
- (10) to promote sustainability by strengthening existing and creating new communities which reduce greenhouse gas emissions and do not compromise the needs of future generations, by among other means encouraging broad based public involvement in developing and implementing a community plan and ensuring the governance structure is adequate to sustain its implementation.<sup>48</sup>

This law guides the expenditure of all state funds on infrastructure that is needed to support local development.<sup>49</sup> It is essential that local

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47. *Id.* § 6-0105.

48. *Id.* § 6-0107.

49. *See generally id.*

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plans and zoning conform to its principles, if localities are to compete successfully for state infrastructure dollars. Local policies should align with the Act's criteria for funding, which include the ten smart growth principles listed above.

Additional priorities for state agencies that fund land use, economic development, and housing projects are contained in the recently adopted Regional Economic Development Council strategies.<sup>50</sup> The Mid-Hudson Regional Council, for example, adopted a strategy that calls for compact, mixed-use development patterns that create an opportunity for growth that is sustainable, cost-effective, energy and natural resource-conserving, climate-friendly, affordable, and attractive to young workers, concentrating growth around existing infrastructure.<sup>51</sup>

Executive Order 30-24 (GHG Emissions)<sup>52</sup> and Executive Order No. 2 (Energy Policy)<sup>53</sup> state New York's commitment to greenhouse gas reduction and energy conservation, which is furthered by initiatives that attract population growth to existing urban areas and additional compact, mixed-use development locations, thereby reducing vehicle miles travelled and energy consumption in buildings.<sup>54</sup>

Climate Smart Communities (CSC) is a state-local partnership program administered by the NYS Department of Environmental Conservation (DEC) to reduce greenhouse gas emissions, save taxpayer dollars, and advance community goals for health and safety,

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50. See *Regional Council Final Five Year Strategic Plans 2012–2016*, N.Y. REGIONAL ECON. DEV. COUNCILS, <http://regionalcouncils.ny.gov/content/regional-economic-development-council-final-five-year-strategic-plans-2012-2016> (last visited Oct. 18, 2013).

51. Core Strategy 4 of the plan: REVITALIZE: Support building projects that improve key regional infrastructure to make the Region more business-ready; foster housing investment to create construction jobs and more housing supply; and support the revitalization of our urban centers as engines of regional prosperity. N.Y. REG'L ECON. DEV. COUNCIL, *BUILDING A NEW NEW YORK REGION BY REGION TO STIMULATE ECONOMIC GROWTH* 13 (2013), available at [http://regionalcouncils.ny.gov/sites/default/files/documents/2013/Guidebook3\\_draft\\_6-3-13\\_345pm.pdf](http://regionalcouncils.ny.gov/sites/default/files/documents/2013/Guidebook3_draft_6-3-13_345pm.pdf).

52. N.Y. COMP. CODES R. & REGS. 9, § 7.24 (2013).

53. See *NY State Energy Plan Executive Order No. 2 (2008)*, N.Y. DEP'T ENVTL. CONSERVATION, <http://www.dec.ny.gov/energy/71363.html> (last visited Nov. 5, 2013).

54. See *generally* FUNDERS' NETWORK FOR SMART GROWTH AND LIVABLE CMTYS., *ENERGY AND SMART GROWTH: IT'S ABOUT HOW AND WHERE WE BUILD* (2004), available at [http://www.fundersnetwork.org/files/learn/Energy\\_and\\_Smart\\_Growth.pdf](http://www.fundersnetwork.org/files/learn/Energy_and_Smart_Growth.pdf).

economic vitality, energy independence, and quality of life.<sup>55</sup> The CSC program establishes action items that, if undertaken by local governments, will move the State forward in its efforts to reduce greenhouse gas emissions while continuing sustainable economic growth at the local level.<sup>56</sup> Nearly all of the steps recommended under this state program urge localities to green their buildings, vehicles, operations, solid waste disposal, and other assets and functions, as well as to inform and inspire the public to reduce energy use.<sup>57</sup> The CSC goes further, however, and urges localities to “[u]pdate land use policies, building codes, [and] community plans in ways that reduce sprawl, minimize development in floodplains, and protect forests.”<sup>58</sup>

Under the recently launched Cleaner Greener Communities Program,<sup>59</sup> the State of New York is promoting sustainable development and has pledged \$100 million to fund plans and projects that reduce greenhouse gas emissions, eighty-five percent of which is carbon dioxide, much of which results from the generation of electricity to heat and cool buildings and from the tail pipes of personal motor vehicles.<sup>60</sup> These funds have been secured by the state under the Regional Greenhouse Gas Initiative (RGGI).<sup>61</sup>

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55. See *Climate Smart Communities*, N.Y. DEP’T ENVTL. CONSERVATION, <http://www.dec.ny.gov/energy/50845.html> (last visited Nov. 5, 2013). The Climate Smart Communities program is jointly sponsored by six New York State agencies, including the Department of Environmental Conservation, the New York State Energy Research and Development Administration (NYSERDA), the Department of Transportation (DOT), the Department of Health (DOH), the Department of State, and the Public Service Commission.

56. See generally *id.*

57. *Id.*

58. LAND USE LAW CTR., PACE LAW SCH., MID-HUDSON REGIONAL SUSTAINABILITY PLAN IMPLEMENTATION GUIDANCE DOCUMENT 17 (May 2013), available at [http://www.co.orange.ny.us/filestorage/124/1362/Mid-Hudson\\_Regional\\_Sustainability\\_Plan\\_Implementation\\_Guidance\\_Document.pdf](http://www.co.orange.ny.us/filestorage/124/1362/Mid-Hudson_Regional_Sustainability_Plan_Implementation_Guidance_Document.pdf); see also *infra* Part III.

59. *Cleaner, Greener Communities Regional Sustainability Planning Program Up to \$2.7 Million Available for the Finger Lakes, Long Island & Mohawk Valley Regions*, N.Y. ST. ENERGY RESEARCH & DEV. AUTHORITY, <http://www.nyserda.ny.gov/Funding-Opportunities/Consolidated-Funding-Application/~media/Files/FO/Closed%20Opportunities/2011/RFP%202391/cgc-guidance-document.ashx> (last visited Aug. 14, 2013).

60. Together these sources constitute fifty-two percent of domestic emissions of carbon dioxide.

61. Press Release, Governor Cuomo Launches Grant Program For Projects to Support Cleaner, Greener Communities in Southern Tier (June 27, 2013), <http://www.governor.ny.gov/press/06272013-Grant-Program-for-Projects-to-Support-Cleaner-Greener-Communities-Southern-Tier>. See generally *Cleaner, Greener*

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RGGI is a cooperative effort among the states of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont.<sup>62</sup> Under the RGGI initiative, cooperating states sell emission allowances through auctions and invest proceeds in projects that achieve energy efficiency and promote renewable energy and other clean energy technologies.<sup>63</sup>

RGGI Funds generated from the sale of emissions allowances in New York support development of the regional sustainability plans, including that of the Mid-Hudson Region.<sup>64</sup> The Mid-Hudson Regional Economic Development Council (REDC) is one of ten regional councils established by Governor Cuomo in 2011, charged with developing economic development strategies for their respective regions.<sup>65</sup> The Mid-Hudson Regional Sustainability Plan (the Plan) was developed as part of the New York State Energy Research and Development Authority's (NYSERDA's) Cleaner, Greener Communities program, intended to empower the regions to take charge of sustainable development in their communities by identifying and funding smart growth practices.<sup>66</sup> The sustainability plan for the Mid-Hudson Region contains language explicitly promoting development oriented towards transit station areas and other urban neighborhoods.<sup>67</sup> It identifies compact, mixed-use, mixed-income development focused on urban centers with public transit as a key sustainable, economic development policy.<sup>68</sup> To implement these strategies, the Plan identifies a number of tools that municipalities should consider using, including: implementing Transit Oriented Development; promoting Land Efficient Development (LED), or compact, mixed-use, center-based development where public transit does not exist; expanding and upgrading mass transit;

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*Communities Program*, N.Y. ST. ENERGY RESEARCH & DEV. AUTHORITY, <http://www.nyserra.ny.gov/Cleaner-Greener> (last updated June 27, 2013).

62. REGIONAL GREENHOUSE GAS INITIATIVE INC., INVESTMENT OF PROCEEDS FROM RGGI CO<sub>2</sub> ALLOWANCES 3 (2011), [http://www.rggi.org/docs/Investment\\_of\\_RGGI\\_Allowance\\_Proceeds.pdf](http://www.rggi.org/docs/Investment_of_RGGI_Allowance_Proceeds.pdf).

63. *Id.* at 3.

64. *See* REGIONAL GREENHOUSE GAS INITIATIVE INC., *supra* note 62.

65. *See* REG'L ECON. DEV. COUNCIL, AVAILABLE CFA RESOURCES 3 (2013), available at [http://regionalcouncils.ny.gov/sites/default/files/documents/2013/resources\\_available\\_2013.pdf](http://regionalcouncils.ny.gov/sites/default/files/documents/2013/resources_available_2013.pdf).

66. MID-HUDSON REG'L ECON. DEV. COUNCIL, MID HUDSON REGIONAL SUSTAINABILITY PLAN (2013).

67. *Id.*

68. *See generally id.* at 4:28.



and improving streets, sidewalks, and trails to connect communities and promote non-motorized transportation.<sup>69</sup>

The Plan also discusses a number of techniques that municipalities can use to promote the compact, mixed-use, mixed-income development that is central to the Region's future growth.<sup>70</sup> Most importantly, the Sustainability Plan notes that many of the proposed initiatives will not be able to proceed unless they are called for in local comprehensive plans and permitted under existing zoning regulations.<sup>71</sup>

### B. The Federal Sustainable Communities Initiative

These planning principles in New York State are echoed by HUD and the DOT at the federal level and were incorporated in their demonstration project known as the Sustainable Communities Initiative.<sup>72</sup> In 2009, these three agencies created the Partnership for Sustainable Communities to help communities improve access to affordable housing and transportation while protecting the environment.<sup>73</sup> In a report called *Federal Barriers to Local Housing and Transportation Coordination*, dated August 15, 2011, the agencies' policies regarding affordability and access to high opportunity locations were described as follows:

Developing safe, reliable, and economical transportation choices helps to decrease household transportation costs, reduce our nation's dependence on foreign oil, improve air quality, reduce greenhouse gas emissions, and promote public health. A 2004 study commissioned by FTA called *Hidden in Plain Sight* estimates that the demand for housing near transit will increase to 14.6 million households by the year 2030, more than double the six million households that currently reside within a half mile of transit. As demand for walkable, transit-accessible neighborhoods grows, federal housing and transportation funding will increasingly need to be coordinated in order to ensure the benefits of these investments particularly are available to low-income households.<sup>74</sup>

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69. *Id.* at 4:28–4:36.

70. *Id.*

71. *Id.* at 4:30.

72. *Office of Sustainable Communities*, U.S. DEP'T HOUSING & URB. DEV., <http://portal.hud.gov/hudportal/HUD?src=/hudprograms/sci> (last visited Oct. 18, 2013).

73. Poticha, *supra* note 44.

74. U.S. DEP'T OF TRANSP. & U.S. DEP'T OF HOUS. & URBAN DEV., *FEDERAL BARRIERS TO LOCAL HOUSING AND TRANSPORTATION COORDINATION* 17 (2011),

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The Sustainable Communities Initiative was designed by these federal agencies

to support regional, state, and local strategies that better coordinate transportation, housing, and development policies and investments to ensure not only more investment in affordable housing, but also more equitable distribution of affordable housing, including assisted housing, public housing, and unsubsidized affordable housing—near public transportation stops, job centers, and other essential destinations.<sup>75</sup>

Their Federal Barriers report noted that restrictive local “land use ordinances, policies, and practices can negatively affect individuals’ ability to live in high opportunity areas, based upon their race, national origin, familial status or disability and other protected characteristics under the Fair Housing Act.”<sup>76</sup>

The federal agencies participating in the SCI emphasize linking public transportation with enhanced access to affordable housing, excellent public elementary schools, job training, and other essential services.<sup>77</sup> They note that state and local government provision of “a number of quality transportation options, ensuring the affordability of housing in these areas, and increasing access to jobs and educational opportunities will increase regions’ long-term economic resilience.”<sup>78</sup>

HUD Secretary Shaun Donovan has stated that he is making sure that “federal dollars stop[] encouraging sprawl and start[] lowering the barriers to the kind of sustainable development our country needs and our communities want.”<sup>79</sup> Localities in New York that wish to qualify for much-needed federal HUD and DOT funding will be

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available at [http://www.sustainablecommunities.gov/pdf/dot\\_hud\\_barriers\\_report\\_final\\_08\\_25\\_11\\_clean%20\\_2\\_.pdf](http://www.sustainablecommunities.gov/pdf/dot_hud_barriers_report_final_08_25_11_clean%20_2_.pdf).

75. *Id.*

76. *Id.*

77. *Id.* (“Due to the substantial costs involved in developing high-density housing near public transportation and in other sustainable contexts, major investments of public funds will be needed to ensure that a portion of these housing units are affordable to low- and moderate-income families. To protect this substantial public investment and ensure that low- and moderate-income families have continued access to sustainable communities, federal incentives for communities that provide covenants and other affordable housing protections for affordability over the longest-possible timeframe should be available.”).

78. *Id.*

79. *Donovan Pushes Sustainability*, SUSTAINABLE COMMUNITIES, <http://www.p4sc.org/articles/all/donovan-pushes-sustainability> (last visited Oct. 18, 2013).

motivated to include these principles in their comprehensive plans and to implement them through compatible zoning regulations.

There are other federal programs that a sustainable communities certification program should consider beyond sustainable communities initiatives and fair housing. One, to be sure, is the EPA's identification of Environmental Justice Areas.<sup>80</sup> New York's Department of Environmental Conservation has incorporated these Environmental Justice Areas into its new environmental impact forms, ensuring that every future development project will be assessed for its potential adverse impact on such areas.<sup>81</sup>

Another is the FEMA National Flood Insurance Program's (NFIP's) Community Rating System (CRS).<sup>82</sup> This comprehensive federal program provides an option for communities willing to comply with standards beyond the minimum requirements of the NFIP. In return, the communities receive increased discounts on their flood insurance premiums. The CRS is an eighteen-component rating system that gives each community a number of credits based on how well they meet various requirements stipulated under the four categories of flood prevention: public information; mapping and regulations; flood damage reduction; and flood preparedness. Many of these credits not only prevent flooding, but also promote urban sustainability. Section 420 (Open Space Preservation) requires a community to guarantee that floodplains in their natural state be kept free from development.<sup>83</sup> Section 430 (Higher Regulatory Standards) mandates zoning the floodplain for minimum lot sizes of one acre or larger, as well as heightened new construction standards including freeboard and engineered foundations.<sup>84</sup> The CRS, in providing goals, incentives, and technical aid to localities, is precisely the type of

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80. *See Identification of Environmental Justice Areas Through the Application of Local Area Statistics*, U.S. EPA, [http://cfpub.epa.gov/ncer\\_abstracts/index.cfm/fuseaction/display.abstractDetail/abstract/7644](http://cfpub.epa.gov/ncer_abstracts/index.cfm/fuseaction/display.abstractDetail/abstract/7644) (last visited Apr. 22, 2013) ("Environmental justice communities are low-income and minority communities that suffer from disproportionate exposure to potentially hazardous land uses.").

81. *See Commissioner Policy 29, Environmental Justice and Permitting*, N.Y. DEP'T ENVTL. CONSERVATION (Mar. 19, 2003), <http://www.dec.ny.gov/regulations/36951.html>.

82. FEMA, NATIONAL FLOOD INSURANCE PROGRAM COMMUNITY RATING SYSTEM COORDINATOR'S MANUAL (2013), *available at* [http://www.fema.gov/media-library-data/20130726-1557-20490-9922/crs\\_manual\\_508\\_ok\\_5\\_10\\_13\\_bookmarked.pdf](http://www.fema.gov/media-library-data/20130726-1557-20490-9922/crs_manual_508_ok_5_10_13_bookmarked.pdf).

83. *Id.* at 420-1.

84. *Id.* at 430-1.

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comprehensive system that should be taken into consideration when designing a sustainable communities certification program.

### III. TOWARD A CERTIFICATION PROGRAM

#### A. Why Is Certification Needed?

In response to the consequences of climate change and shifting demographic trends, state and federal agencies are working to create programs to facilitate and reward sustainability at the local level.<sup>85</sup> At the same time, local governments looking to participate in these programs need benchmarks to guide them when developing plans and policies.<sup>86</sup> Existing certification programs lack standardized criteria defining the specific measures local governments can take in order to act in accordance with state and federal programs.<sup>87</sup> Consequently, state and federal agencies are prevented from effectively recognizing and rewarding local actions and initiatives, and in turn, local governments are left without reassurance that their actions will be rewarded. This stymies the effectiveness of programs trying to incentivize sustainable development. The result is hesitation and delay in the implementation of sustainable development at the local level. A certification program based on standardized criteria and clearly defined measures is necessary to: (1) allow state and federal agencies to effectively identify and reward local governments for actions taken in conformance with state and federal programs; and (2) give local governments the opportunity to focus their energies on sustainable projects and initiatives that are both relevant to their communities and that will give them the reassurance of funding and support.

For several years, a variety of agencies and organizations have been experimenting with the creation of certification programs to guide local governments.<sup>88</sup> The next section identifies and analyzes those programs.

#### B. Progress on Certification to Date: Nine Programs

Existing sustainable community certification programs rely on voluntary participation, sometimes incentivized by state and private

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85. *See generally supra* Part II.

86. *See infra* Part III.B (discussing existing certification programs).

87. *See infra* Part III.B.

88. *See infra* Part III.B.

financial grants, access to state training programs and technical assistance, public relations benefits, reduced energy costs, and a myriad of other benefits.<sup>89</sup> The majority of these programs tend to focus on municipal actions and behavior—such as decreasing municipal carbon output through use of energy and water efficient buildings, vehicle fleets, and construction processes—and civic engagement through educational outreach programs.

Few of these certification programs contain a significant amount of credits for regulating or incentivizing new private sector development or substantial redevelopment.<sup>90</sup> The failure to provide a comprehensive system to measure how effectively local governments act to influence private sector sustainable development is a significant shortcoming of the current programs. This section examines the key elements of nine existing certification programs and highlights operational gaps in order to inform the development of a more comprehensive, improved certification system.

### 1. *New Jersey: Sustainable Jersey*

Sustainable New Jersey is by far the most detailed and far-reaching of the current programs. Developed by the New Jersey League of Municipalities, the Mayor's Committee for a Green Future, the New Jersey Sustainable State Institute at Rutgers University, and the Sustainability Institute at the College of New Jersey, Sustainable Jersey incentivizes certification with an array of public and private financial grants and access to state training and resources.<sup>91</sup> Most importantly, the program focuses its efforts on both municipal behavior *and* private sector development, with credits awarded for actions ranging from municipal smart growth and transportation projects to amending local zoning ordinances to facilitate urban agriculture.<sup>92</sup>

Among the credits designed to impact municipal behavior, Sustainable Jersey seeks to promote the upgrading of all municipal buildings so that each building makes use of the most energy efficient

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89. *See infra* Part III.B (discussing existing certification programs).

90. *See infra* Part III.B.

91. *History*, SUSTAINABLE JERSEY, <http://www.sustainablejersey.com/about/history> (last visited Oct. 18, 2013).

92. *See generally Sustainable Jersey Actions*, SUSTAINABLE JERSEY, <http://www.sustainablejersey.com/actions-certification/actions/> (last visited Oct. 18, 2013).

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technology and systems available.<sup>93</sup> This credit requires municipalities to conduct an inventory of all the buildings they own, assess them against the major available programs, and then, as warranted by the assessment, enroll in one of the state sponsored or private programs.<sup>94</sup> If done correctly, this action can cost little or no money up front, and can significantly decrease operating costs, energy consumption, and greenhouse gas emissions. It is exemplary of many of the Sustainable Jersey credits in that its implementation cost to the municipality is either de minimis or offset by the benefits it produces.<sup>95</sup>

An additional credit involves municipalities tracking their Municipal Carbon Footprint, or a measure of “the amount of greenhouse gas (GHG) emissions produced by local government operations in a given year,” through an inventory.<sup>96</sup> This inventory includes buildings, vehicle fleets, and all general operations.<sup>97</sup> Not only does this inventory allow Sustainable Jersey to track the actual carbon output of the cities it is being implemented in, but it helps those cities to then develop more effective responses by focusing on the exact nature of their impact. Similarly, the fleet inventory credit incentivizes the acquisition of a “green fleet,” which helps decrease greenhouse gas emissions and the health risks associated with them.<sup>98</sup> This inventory involves “surveying how the vehicle is used, as well as its environmental impact and fuel usage. Once the data has been considered, a strategy for greening the fleet can be developed, including specific efficiency targets.”<sup>99</sup> The long-term savings in public health costs and energy consumption associated with these credits will be invaluable to the municipalities that undertake them.

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93. For example, in Bernards Township, “[m]otion Detectors were placed in areas of low activity or in areas that do not need constant lighting.” *High Performance Building*, SUSTAINABLE JERSEY, <http://www.sustainablejersey.com/actions-certification/actions/#/open/action/22> (last visited Oct. 18, 2013).

94. *See id.*

95. *See 47 New Jersey Towns Submit for Sustainable Jersey Certification* SUSTAINABLE JERSEY (Oct. 1, 2009), [http://www.sustainablejersey.com/news/news-single-view/?tx\\_news\\_pi1%5Bcontroller%5D=News&tx\\_news\\_pi1%5Baction%5D=detail&tx\\_news\\_pi1%5Bnews%5D=51&cHash=10f5e019f0bbf499a7970083fcfc3d90](http://www.sustainablejersey.com/news/news-single-view/?tx_news_pi1%5Bcontroller%5D=News&tx_news_pi1%5Baction%5D=detail&tx_news_pi1%5Bnews%5D=51&cHash=10f5e019f0bbf499a7970083fcfc3d90).

96. SUSTAINABLE JERSEY, MUNICIPAL CARBON FOOTPRINT 1 (2012), *available at* <http://sj-site-legacy-editor-doc.s3.amazonaws.com/p4!11.pdf>.

97. *Id.*

98. SUSTAINABLE JERSEY, GREEN FLEETS: FLEET INVENTORY 1 (2012), *available at* <http://sj-site-legacy-editor-doc.s3.amazonaws.com/p12!111.pdf>.

99. *Id.*

Most importantly, Sustainable Jersey includes credits aimed at altering private sector development practices and behaviors—a critical feature that is lacking in the majority of current certification programs.<sup>100</sup> One example is the Zoning and Food Production & Sales Credit, which offers credits for revisions to zoning regulations, including: requiring all new development to set aside lands for community garden areas; permitting urban agricultural gardens in front-yard setbacks; allowing “backyard chickens” or other limited animal agricultural activities in residential zones; and allowing temporary farm stands or farmers markets to operate in commercial zones, close to transit hubs, and in residential zones.<sup>101</sup>

Another credit aimed at influencing private sector development is offered for communities that assess and integrate environmental justice issues into the master plan and land development ordinances and policies.<sup>102</sup> The credit urges the local land use and planning authorities to “use information about public health and environmental impacts, including cumulative impact and risk assessment data sources, to inform community planning, zoning, and permitting decisions.”<sup>103</sup>

The program also offers credits for “the adoption of an ordinance to amend the Site Plan checklist,” to statutorily demand more green building components.<sup>104</sup> While achieving the twenty credits available for this course of action “may entail significant costs as the municipality is advised to review and possibly amend its land development ordinance and Master Plan for correspondence with green design standards,” in the long run the decreased operating expenses and reduced construction waste, in addition to the projected increased investment in green projects, will offset these costs.<sup>105</sup>

Other private sector credits are available for the adoption of clustering ordinances, wind energy ordinances and complete streets policies.<sup>106</sup> These credits represent significant incentives for municipalities to encourage sustainable private sector development.

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100. *See generally Sustainable Jersey Actions, supra* note 92.

101. *See id.*

102. *See Environmental Justice in Planning & Zoning*, SUSTAINABLE JERSEY, <http://www.sustainablejersey.com/actions-certification/actions/#/open/action/15> (last visited Oct. 18, 2013).

103. *Id.*

104. *Site Plan Green Design Standard*, SUSTAINABLE JERSEY, <http://sj-site-legacy-editor-doc.s3.amazonaws.com/p5!44.pdf> (last visited Oct. 18, 2013).

105. *See id.*

106. *See Sustainable Jersey Actions, supra* note 92.

2013] *INTEREST IN SUSTAINABLE URBAN PLACES* 1719*2. Massachusetts: Commonwealth Green Communities*

An example of an action-oriented, private sector credit is Massachusetts' as-of-right siting for renewable and alternative energy facilities.<sup>107</sup> The Massachusetts program, Commonwealth Green Communities, was developed and is enforced by the Massachusetts Department of Energy Resources pursuant to statute.<sup>108</sup> The program incentivizes certification with public financial grants to support the cost of evaluating, designing, and implementing renewable energy policies and generating facilities.<sup>109</sup> It focuses its efforts primarily on municipal assets and behaviors and its influence on private sector development is limited to the siting of renewable and alternative energy facilities.<sup>110</sup>

To earn the program's as-of-right siting credit, municipalities "must provide zoning in designated locations for the as-of-right siting of: (1) renewable or alternative energy generating facilities; (2) renewable or alternative energy research and development (R&D) facilities; or (3) renewable or alternative energy manufacturing facilities."<sup>111</sup> Additionally, the program includes a credit for expedited permitting for the facilities provided for in the aforementioned credit.<sup>112</sup> These credits are unique because they are wholly aimed at promoting private sector sustainability by heavily incentivizing it. The process of obtaining siting permits is both time and resource consuming and not always guaranteed to result in the acquisition of the rights sought. Thus, by providing for as-of-right siting and expedited permitting, Massachusetts is removing obstacles to the kind of development it desires to see in its municipalities. This program is but one of many types of municipal regulations that can require sustainable private sector development, and as such it sets the stage for more ambitious requirements of this sort.

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107. MASS. DEP'T OF ENERGY & ENVTL. AFFAIRS, GREEN COMMUNITIES DESIGNATION & GRANT PROGRAM COMMUNITIES (2013), *available at* <http://www.mass.gov/eea/docs/doer/green-communities/grant-program/gc-program-guidance-fall-2013.pdf>.

108. *See id.* at 1.

109. *Id.*

110. *See id.* at 3.

111. *Id.*

112. *Id.* at 4.



### 3. *Florida: Green Local Government Standard*

Florida's Green Local Government Standard "focuses on improving environmental performance through a number of mediums" including energy, air, land, and waste.<sup>113</sup> Developed and enforced by the Florida Energy Office, South East Regional Office of the United States Department of Energy, and the Florida Green Building Coalition, the program includes credits incentivizing private sector development with expedited and discounted building permits for qualifying green building projects.<sup>114</sup> The City of Gainesville first implemented this program and has actively promoted it since implementation.<sup>115</sup> In terms of zoning and planning, the program offers credits for communities that adopt urban growth boundaries, or pass ordinances that: (1) encourage mixed-use zoning; and (2) maintain or reduce net impervious surfaces through reduced parking requirements.<sup>116</sup>

A positive aspect of the program is that it recognizes that developing a standard, rather than a comprehensive guidebook is important because "setting a bar gives local governments a meaningful goal to aim towards."<sup>117</sup> Much of the private sector development focus in Florida's program is, however, aspirational. In fact, one of the primary goals of the Green Local Government Standard is to:

act as an excellent metric on which to base eventual statewide incentives to cities and counties who become certified. It could also be used in the regulatory arena, where a non-compliant local government could be given the option of achieving the certification, as opposed to other regulatory actions that may be taken against them.<sup>118</sup>

These aspirations are still a long way off in Florida but, at the very least, the framework exists, and provides future potential. The same is true of the next program.

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113. *Local Governments: Green Local Government Standard*, FLA. GREEN BUILDING COALITION (Jan. 1, 2011), <http://www.floridagreenbuilding.org/local-governments>.

114. *Id.*

115. *Id.*

116. FLA. GREEN BLDG. COAL., FLORIDA GREEN LOCAL GOVERNMENT DESIGNATION CERTIFICATION STANDARD REFERENCE GUIDE 15, 47 (2011), *available at* [http://www.floridagreenbuilding.org/files/1/File/Standard\\_Govt/Version4/Green%20Local%20Govt%20V4%20Reference%20Guide.pdf](http://www.floridagreenbuilding.org/files/1/File/Standard_Govt/Version4/Green%20Local%20Govt%20V4%20Reference%20Guide.pdf).

117. *Local Governments: Green Local Government Standard*, *supra* note 113.

118. *Id.*

2013] *INTEREST IN SUSTAINABLE URBAN PLACES* 17214. *Virginia: “Go Green,” Virginia’s Green Government Challenge*

Go Green Virginia’s Green Government Challenge is a “friendly competition” rather than a standard-based certification program.<sup>119</sup> However, the program provides an excellent baseline for an eventual certification program in that it outlines specific local objectives and provides measures that municipalities can take to become more sustainable.<sup>120</sup> The measures are further illustrated by specific examples of ordinances that various communities have already adopted.<sup>121</sup> Communities can earn points toward “Green Government” certification by implementing actions in areas categorized as policy adoption, energy efficiency, green building, and land use/transportation.<sup>122</sup> While the program focuses its efforts primarily on municipal assets and behaviors, it also includes a few provisions designed to influence private sector development. For example, points are awarded to municipalities that “adopt land-use plans that allow higher-density development either near public transit nodes or in areas with existing infrastructure AND that encourage mixed-use communities.”<sup>123</sup> Points are also awarded to municipalities that “adopt a land use or development tool that preserves open space, farmland and forests such as Purchase of Development Rights (PDRs) or Transfer of Development Rights (TDRs).”<sup>124</sup>

While the program generally lacks points designed to influence sustainable private sector development—which inhibits the overall goal of promoting sustainable development at the local level—these individual examples suggest that creating a more robust certification system that includes a comprehensive list of private sector credits is not only possible, but promising. And while the current patchwork state of many of the aforementioned programs is what ultimately prevents them from achieving the greatest level of sustainability possible, the action-oriented nature of many of these credits is a positive lesson in what can work best. Not all programs contain this characteristic.

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119. *Who We Are*, GO GREEN VA., [http://www.gogreenva.org/?/who\\_we\\_are](http://www.gogreenva.org/?/who_we_are) (last visited Jan. 27, 2013).

120. *Take the 2012 Green Government Challenge*, GO GREEN VA., <http://gogreenva.org/?/challenge/participate/id/1/p/score> (last visited Nov. 5, 2013).

121. *Id.*

122. *Id.*

123. *Id.*

124. *Id.*

### 5. *Georgia: Atlanta's Certified Green Communities*

Atlanta's Certified Green Communities program, run by the Atlanta Regional Commission, is primarily focused on municipal actions but contains a number of interesting measures relating to private development.<sup>125</sup> The goal of the program is for municipalities to set an example for the private sector "by conserving energy, investing in renewable energy, conserving water, conserving fuel, reducing waste and protecting and restoring the community's natural resources."<sup>126</sup> The most promising aspect of this program is that it provides multiple measures a municipality can take to reach specific objectives, making it more flexible and easier to implement. For example, under the "Trees and Greenspace" objective, a municipality can earn points if it "[d]evelop[s] and enforce[s] parking lot canopy standards that result in 50% canopy coverage of impervious parking surfaces within 15 years of completion," or if it adopts a "community forest master plan" that will preserve and increase tree canopy.<sup>127</sup> The program further provides guidance by outlining examples of implementation in other communities.<sup>128</sup> Thus, Atlanta's program has the foundation—if not the specifics—for a more comprehensive certification system that influences the private sector.

### 6. *Connecticut: Menu of Municipal Climate Actions and Resources*

Though not technically a certification program, Connecticut's Menu of Municipal Climate Actions and Resources provides a substantial list of objectives and measures aimed at influencing private sector development.<sup>129</sup> The Menu was developed by the Governor's Steering Committee on Climate Change and provides a

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125. *Certified Green Communities Program*, ATLANTA REG'L COMM'N, <http://www.atlantaregional.com/environment/green-communities> (last visited Nov. 5, 2013).

126. *Id.*

127. ATLANTA REG'L COMM'N, GREEN COMMUNITIES CERTIFICATION MANUAL 110 (2012), available at [http://www.atlantaregional.com/file%20library/environment/green%20communities/2013\\_manual\\_green\\_communities\\_december2012.pdf](http://www.atlantaregional.com/file%20library/environment/green%20communities/2013_manual_green_communities_december2012.pdf).

128. *See Id.*

129. *See Menu of Municipal Actions and Resources*, CLIMATE CHANGE CONN. (Dec. 27, 2012), [http://www.ct.gov/deep/cwp/view.asp?a=4423&q=521742&deepNav\\_GID=2121index.php/towns/muni-actions](http://www.ct.gov/deep/cwp/view.asp?a=4423&q=521742&deepNav_GID=2121index.php/towns/muni-actions).

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viable foundation for an expanded certification program.<sup>130</sup> For example, the Land Use and Responsible Growth objective lists measures that municipalities can take, such as creating mixed-use zones or mixed-use overlay zones, zoning for affordable or mixed-income housing, and adopting policies that encourage infill and Brownfield redevelopment.<sup>131</sup> While communities do not earn points toward certification, the Menu coordinates specific measures with state and federal funding opportunities to provide communities with the reassurance that their initiatives will be recognized and rewarded, which is a major goal of a standards-based certification program.<sup>132</sup>

### 7. *Minnesota: GreenStep Cities*

Minnesota's GreenStep Cities program includes several useful components that are worthy of consideration.<sup>133</sup> Developed and enforced by the Center for Energy and Environment and the Minnesota Pollution Control Agency, GreenStep Cities currently incentivizes certification with recognition on the GreenStep Cities website, but "a sponsorship program is envisioned to raise cash awards for cities, to recognize many dimensions of city accomplishments. . . ."<sup>134</sup> The program focuses its efforts on both municipal assets and behaviors and private sector development. It divides cities into three distinct categories based on factors such as the number of municipally owned buildings, whether the city has fixed route transit services, and whether it has adopted a zoning ordinance.<sup>135</sup> To receive certification, a city must complete a specified number of Best Practice measures depending on the category in which the city fits.<sup>136</sup> An example of a Best Practice measure includes amending zoning ordinances to increase density in single-family zones

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130. *Climate Change*, CONN. DEP'T ENERGY & ENVTL. PROTECTION, [http://www.ct.gov/deep/cwp/view.asp?a=4423&q=521742&deepNav\\_GID=2121index.php/towns/muni-actions](http://www.ct.gov/deep/cwp/view.asp?a=4423&q=521742&deepNav_GID=2121index.php/towns/muni-actions) (last visited Oct. 18, 2013).

131. CONN. DEP'T OF ENERGY & ENVTL. PROT., *THE MUNICIPAL PRIMER* (2008), available at [http://www.ct.gov/deep/lib/deep/land\\_resources\\_and\\_planning/primer/themunicipalprimer.pdf](http://www.ct.gov/deep/lib/deep/land_resources_and_planning/primer/themunicipalprimer.pdf).

132. *See Id.*

133. *The Minnesota GreenStep Cities Program*, MINN. POLLUTION CONTROL AGENCY, <http://greenstep.pca.state.mn.us/aboutProgram.cfm> (last visited Oct. 18, 2013).

134. *What Are the Benefits?*, MINN. POLLUTION CONTROL AGENCY, <http://greenstep.pca.state.mn.us/benefits.cfm> (last visited Nov. 5, 2013).

135. *Steps to Becoming Recognized as a Green City*, MINN. GREENSTEP CITIES, <http://greenstep.pca.state.mn.us/steps.cfm> (last visited Oct. 18, 2013).

136. *Id.*

to at least seven units per acre.<sup>137</sup> Another Best Practice measure encourages mixed-used development by directing the municipality to create a new downtown district that allows residential and compatible commercial development.<sup>138</sup>

#### 8. ICLEI STAR Community Index

The International Council for Local Environmental Initiatives (ICLEI) STAR Community Index<sup>139</sup> is under development. It is being promulgated by several organizations including the U.S. Green Building Council (which also created and administers the Leadership in Energy and Environmental Design (LEED) standard for buildings and neighborhood development), the National League of Cities, and the Center for American Progress. This rating system serves as a voluntary, aspirational sustainability certification system for local communities.<sup>140</sup>

The ICLEI STAR Community Index has an emissions reduction target of over 1.3 billion metric tons of CO<sub>2</sub> by 2020.<sup>141</sup> However, the high level of generality and absence of specific measures communities can take to achieve its broad objectives is a critical flaw in the effectiveness of this program. It merely requires municipalities seeking membership to develop an individualized commitment to combating climate change rather than abide by or adhere to objectively defined goals and standards.<sup>142</sup> Consequently, the Index is unable to provide much predictability as to how much CO<sub>2</sub> is targeted for elimination or whether state or region-wide goals are being met. One particularly positive aspect is that the Index includes environmental justice as an objective, which is a key component of sustainability that is often overlooked in other programs.<sup>143</sup>

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137. *Minnesota GreenStep Cities City Best Practices, Action Options and Program Requirements*, MINN. POLLUTION CONTROL AGENCY, <http://greenstep.pca.state.mn.us/bestPractices.cfm> (follow "Download this Spreadsheet" hyperlink) (last visited Nov. 5, 2013).

138. *Id.*

139. INT'L COUNCIL FOR LOCAL ENVTL. INITIATIVES, *Sustainability Goals and Guiding Principles 2-3* (2010), available at [http://www.icleiusa.org/library/documents/TAR\\_Sustainability\\_Goals.pdf](http://www.icleiusa.org/library/documents/TAR_Sustainability_Goals.pdf).

140. *Id.* at 3.

141. *Id.* at 8.

142. *How to Become a Member*, ICLEI USA, <http://www.icleiusa.org/join/process-of-joining/process-of-joining> (last visited Oct. 18, 2013).

143. STAR COMMUNITIES, *STAR COMMUNITY RATING SYSTEM 15* (2012), available at <https://www.starcommunities.org/uploads/rating-system.pdf>.

2013] *INTEREST IN SUSTAINABLE URBAN PLACES* 1725*9. New York Climate Smart Communities Certification System:  
A Work in Progress*<sup>144</sup>

New York State has recently distributed a draft guidance manual for its Climate Smart Communities Program that includes several factors related to climate change mitigation and adaptation.<sup>145</sup> The CSC Certification program was established in 2013 by the state Department of Environmental Conservation (DEC) and the state's energy agency, NYSERDA, with funding from the DEC Hudson River Estuary Program, through the New York State Environmental Protection Fund, in cooperation with the New England Interstate Water Pollution Control Commission.<sup>146</sup> The CSC Certification program was developed to further engage New York State local governments in the CSC program, to provide a clear framework to guide local governments in their climate protection efforts, and to recognize their achievements as they make progress.<sup>147</sup>

"The CSC Certification program was developed with the primary goal of providing a more structured framework and guidance for local governments to advance their climate protection work through the existing CSC Pledge."<sup>148</sup> This certification is based entirely on ten CSC Pledge Elements and contains factors under each element. Pledge elements six and seven contain several factors that relate to regulation and influencing private sector development toward sustainability.<sup>149</sup>

Pledge element six covers promoting climate protection through community land use tools. The draft guidance manual refers to a number of municipal measures capable of minimizing the greenhouse gas impact of new development as follows: "update or adopt community plans, land-use policies, building codes, and multi-modal transportation actions to limit sprawl, reduce vehicle miles traveled, and protect open lands, wetlands, and forests."<sup>150</sup> The draft factors include adopting renewable energy ordinances, green building codes, sustainable site design guidelines, zoning for farmers markets,

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144. N.Y. DEP'T OF ENVTL. CONSERVATION, CLIMATE SMART COMMUNITIES CERTIFICATION PROGRAM, GUIDANCE MANUAL (2013) (on file with author).

145. *See generally id.* at 1-2.

146. *Id.* at I-1

147. *Id.*

148. *Id.*

149. *Id.* at 6-1, 7-1.

150. *Id.* at I-4.

community gardens, and urban agriculture, preservation of open space, and green parking standards.

Pledge element seven relates to planning for adaptation to unavoidable climate change.<sup>151</sup> Communities are to make a commitment to enhance local resilience by establishing a climate resiliency vision and associated goals, identifying vulnerabilities to climate change impacts for both government operations and the community, and developing and implementing strategies to address those vulnerabilities and increase overall community resilience.<sup>152</sup> The draft manual includes as factors for this element adopting a floodplain management and protection ordinance, enhancing or creating natural buffers in floodways or in coastal zones, facilitating a managed retreat from flood prone areas, adopting low-impact development stormwater management practices, requiring coastal development to consider sea level rise, and encouraging xeriscaping.<sup>153</sup> Several of these will require regulatory changes to ensure that private development is sustainable.

#### IV. MOVING CERTIFICATION BEYOND MUNICIPAL BEHAVIOR

There are approximately 40,000 local governments in the United States.<sup>154</sup> They own hundreds of thousands of buildings and millions of vehicles. In the aggregate, they are a major employer in the country.<sup>155</sup> For these critical reasons, sustainable community certification systems have concentrated on measuring and rewarding municipal behavior regarding municipal assets and operations. Demonstrable progress has been made by many municipalities over the past several years in getting their own houses in order: an important beginning. Local governments are greening themselves—their own buildings, operations, purchasing, and employees—and these activities are embraced in existing certification systems.

These localities, however, through their land use authority, also regulate private building and determine where development goes,

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151. *Id.* at 7-1.

152. *Id.* at 7-5.

153. *Id.* at 7-15 to 7-23.

154. *Table 2. Local Governments by Type and State: 2012*, U.S. CENSUS BUREAU, [http://www2.census.gov/govs/cog/2012/formatted\\_prelim\\_counts\\_23jul2012\\_2.pdf](http://www2.census.gov/govs/cog/2012/formatted_prelim_counts_23jul2012_2.pdf) (last visited Oct. 18, 2013).

155. *2011 Public Employment and Payroll Data: Local Governments United States Total*, U.S. CENSUS BUREAU, <http://www2.census.gov/govs/apes/11locus.txt> (last updated May 2013).

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whether in existing neighborhoods or on remote landscapes. The exercise of local land use authority, over time, determines human settlement patterns, which, in turn, dictates consequential matters such as vehicle miles travelled, fossil fuels burned, carbon emissions, energy consumed by buildings, impervious coverage, flooding, potable water consumption, surface water pollution, ground water supplies, and importantly, livability. Municipalities are making progress in this area of engagement as well. They are developing sustainability plans, incentives, and regulations that result in less energy use, decreased per capita carbon emissions, reduced water use, less flooding, more sustainable siting, and more efficient human settlements.<sup>156</sup> More specifically, some are promoting energy efficiency in new and substantially rehabilitated buildings through energy code enhancement; aggregating new buildings around transit by adopting transit oriented development zones; promoting renewable energy generation by making wind turbines and solar arrays as-of-right uses under zoning; promoting low impact development by adopting local environmental laws; increasing tree canopies through tree preservation ordinances that result in lower at-grade temperatures and greater sequestration of CO<sub>2</sub>, among many other initiatives.<sup>157</sup> This progress provides valuable examples of initiatives that can be incorporated into a certification program that measures how well communities promote sustainable private sector development.

The list of local initiatives that encourage or require private sector development to be sustainable is extensive.<sup>158</sup> The certification

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156. See generally *Table 2. Local Governments by Type and State: 2012*, *supra* note 154.

157. *Id.* at 24–25, 29.

158. To illustrate the depth and complexity of creating certification standards, the author offers a variety of objectives and measures by which to achieve those objectives, listed below:

- *Achieve Sustainable Sites and Construction:* adopt sustainable site standards that mitigate and adapt to climate change; adopt local environmental laws that preserve or enlarge the sequestering environment and mitigate the heat island effect; install high-reflectance pavement and pervious open-grid pavement systems in developments; eliminate or reduce required amount of off-street parking spaces; locate off-street parking at side or rear of building; require, allow, or encourage shared off-street parking spaces among adjacent land uses in zoning; add zoning or site plan standards that accommodate alternative cars, including charging stations



and require anti-idling; and adopt enhanced construction material and waste management protocols.

- *Shape Sustainable Urban Form and Lower Emissions:* communities can adopt zoning provisions to create denser, compact developments that reduce VMT and carbon dioxide emissions; transportation-efficient development zoning (pre transit); encourage compact development; promote building at a pedestrian-friendly scale; pedestrian oriented design; greening historic buildings; construct building frontage that encourages walking; locate residential development and affordable housing within a walk distance of existing jobs; locate employment opportunities within walking distance of nearby transit and residences; place building entries at frequent intervals along street and sidewalks; include ground-floor retail in nonresidential and mixed-use properties; planned unit development; and transportation efficient development (TED).
- *Conserve Energy:* establish a reliable energy code enforcement program; adopt several energy code enhancements; amend local law to permit individual building or on-site wind or energy systems; adopt zoning approach to encourage district energy systems incorporating on-site generation facilities and combined heat and power; adopt special permit systems to encourage larger scale wind and solar systems; geothermal allowances; maximize solar access; allow on-site renewable energy generation systems, such as solar, wind, geothermal, hydroelectric, or biomass in zoning regulations.
- *Reduce Disaster Exposure:* adopt protocols for adjusting to sea level rise; adopt protocols for natural disaster resiliency; flood plain maps and regulation; identify and map SLR inundation maps (and storm surge); integrate all regulations in special hazard areas; guide development away from floodplains; follow and strengthen federal requirements that regulate building on floodplains; land acquisition; and purchase of development rights.
- *Protect Local Environmental Resources:* environmental protection overlay ordinance; critical environmental area identification and regulation; water conservation ordinance; stream and watercourse ordinance; soil erosion and sedimentation ordinance; stormwater control; ground water protection; drinking water aquifer protection and conservation; aquifer recharge area protection ordinance; site plan green design standards; cluster ordinance; lot size averaging; low impact development ordinance; impervious cover & site disturbance limitations; conservation subdivision ordinance/green infrastructure committee; conservation easements; steep slope ordinance; ridgeline protection; scenic resource protection ordinance; tree protection ordinance; forest preservation; watershed protection; wetlands protection ordinance (in excess of state requirement); environmental impact review requirements; minimize erosion to protect habitat and reduce stress on

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system outlined here begins with a listing of just eight key objectives, followed by illustrative measures localities can adopt to achieve each objective, with a few indicators that can be used to measure progress. This initial attempt to describe an ideal and comprehensive certification system focuses on a framework for organizing and including more initiatives over time.<sup>159</sup> These proposed objectives, measures by which to obtain those objectives, and corresponding initiatives are indicated below, in list form:

1. *Adopting Sustainability Policies and Plans:* To pave the way for action-oriented measures, communities should receive credits for identifying sustainability objectives they would like to achieve, establishing task forces, engaging the community, completing studies and reports, adopting formal policies and comprehensive plan components detailing the measures they will adopt.
  - a. *Measures:* Communities can do this through policy commitment (resolution, executive order, etc.); creating a sustainability task force; comprehensive plan components; sustainable area designation (growth, redevelopment, brownfield, sequestration, conservation, agricultural, floodplain, priority growth area); reports completed on build out, zoning barriers to sustainability, identified natural resources and critical environmental areas, and infrastructure

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water systems; limit and avoid development on steep slopes; restore previously developed slope areas with native and noninvasive plants; and finally, protect existing and restored steep slopes in perpetuity using covenants, conditions, and restrictions or other deed restrictions.

- *Provide Incentives for Sustainable Development:* create a streamlined review process for plan and code complaint projects; bonus density zoning for sustainable development features; fee waivers for sustainable projects; and tax credits and abatements.
- *Protect Agricultural Land:* protect prime and unique soils of state significance; guide growth away from agricultural areas by encouraging infill development, development near transit, or development in a development rights receiving area under a farmland protection program; and adopt zoning that allows agriculture, secondary farm uses and farm-related structures.

159. While these eight objectives are likely to be among the most common contained in any sustainability certification system, the author makes no claim that they are the most beneficial objectives or that they should or should not be contained in any given certification initiative. They have been selected for illustrative purposes.

capacity analysis; adopting plans for energy conservation, including but not limited to promoting renewables, distressed property, brownfield opportunity areas, fair housing opportunity zones, environmental justice areas, agricultural land protection, complete streets, bicycle and walking paths and accommodations; waterfront redevelopment, disaster mitigation, enhanced sequestration and green infrastructure.

- b. *Indicators.* These may include formation of task forces; existence of added policies; reports and studies completed; public meetings held; constituencies involved; and comprehensive plan components adopted.<sup>160</sup>

- 2. *Reducing Vehicle Miles Travelled.* Greater than average density and mixed land uses are needed to create walkable—as opposed to car dependent—neighborhoods and communities, aimed at mitigating climate change by reducing carbon emissions from tailpipes, reducing commuting costs per household, and lowering the cost of development through reduced parking requirements and the cost-efficiency of denser developments.<sup>161</sup>

- a. *Measures.* Communities could identify priority growth areas; adopt compact mixed-use zoning, TOD zoning;<sup>162</sup> institute hamlet zoning; enact affordable and

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160. Communities should be encouraged to assess their assets and needs in selecting sustainability objectives that suit them, and be awarded credits for their progress toward their local goals.

161. *See generally* EWING ET AL., *supra* note 18, at 3.

162. The complexity of these local regulatory decisions, and the reasons that they need guidance from other agencies, can be further illustrated by focusing on zoning for Transit Oriented Development (TOD). *See generally* TIM REARDEN & MEGHNA DUTTA, METRO. AREA PLANNING COUNCIL, GROWING STATION AREAS: THE VARIETY AND POTENTIAL OF TRANSIT ORIENTED DEVELOPMENT IN METRO BOSTON (2012), *available at* <http://www.reconnectingamerica.org/assets/Uploads/20120812MAPC-TOD-Report-FINAL-web-reduced-size.pdf>. Note, for example, the extensive planning going on in the Boston Metropolitan Area, led by the Metropolitan Area Planning Council (MAPC), which has developed a new station area typology that defines ten distinct types, ranging from the Metro Core stations of downtown Boston to undeveloped stations in quiet country suburbs. *See id.* at 9. In some respects, this region parallels the New York Metropolitan Area and the transit areas located in Long Island, New York City, and the lower Hudson Valley. MAPC developed ten station area types based on their

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workforce housing laws; design standards for buildings and streets; provide historic preservation and landmark legislation and funding; reduce parking requirements; streamline approval process for projects in priority growth areas; and institute bonus density zoning for needed amenities (such as art, street furniture, off-site improvements, and transportation demand management systems).

population and employment density, transit service type, land use, demographics and travel behavior. In addition to this information about existing conditions, the types also reflect nature and magnitude of development that could occur over the coming decades. Some station area types are more likely to see small-scale infill development or adaptive reuse that reinforces or strengthens the existing fabric and character of the station area. Other types are amenable to large-scale 'transformational' development that creates entirely new urban districts.

*Id.* at 11. The MAPC report goes on as follows:

The benefits of TOD differ widely across these types. Around many stations, the density and diversity of land use contributes to high transit ridership and low auto use. But in low-density, auto-oriented station areas, proximity to transit has a more limited impact on travel patterns. This distinction is relevant to the many housing, economic, and transportation programs that use transit proximity to prioritize funding, incentives, or investments.

*Id.*

The transit station area typology can help advance equitable and sustainable TOD in a variety of ways:

- Housing, economic development, and infrastructure programs can use the typology to establish funding criteria that reflect both local conditions as well as regional TOD goals.
- Analysis of TOD financing needs and the design of potential new TOD finance products can acknowledge the distinct station area types and the different finance/market conditions that exist in each one.
- Technical assistance from MAPC and other partners can be targeted to station areas with strong potential for TOD but few developments in the pipeline.
- Municipalities and stakeholders can use the analysis to evaluate specific development proposals against the range of densities and project attributes appropriate for the station area type.
- The MBTA can use the analysis of TOD potential to plan for capacity expansion or to evaluate the potential development impact of service changes.

*Id.* at 2. There are many factors that contribute to the success of TOD. *See generally id.* As noted previously, proximity to transit alone is not sufficient to reap the possible transportation benefits—new development must be programmed, designed, and managed to enable and promote sustainable transit and equitable growth. *See generally id.*

- b. *Indicators:* These may include population increase in priority growth areas; increase in retail, office, and service establishments in such areas; increase in bus and rail transit ridership at stations; increase in population density within one-half mile of transit stations and stops; a better housing/jobs balance; reduction in the ratio of car registrations per capita; less gasoline consumption per capita; a walk score increase; increase in linear miles of bicycle and pedestrian ways; decrease in VMT/household; reduced cars and parking per household; reduced commuting time; and an increase in LEED-ND certified projects.
  3. *Conserving Energy in Buildings and Promoting Renewables:* Unit size and buildings' energy efficiency determine how much of the considerable energy is used in buildings, and how the emissions caused in heating and cooling them can be reduced. Better thermal efficiency in mixed-use buildings, tighter building construction, proper building orientation and other aspects of building are under the control of local governments, and all can help.<sup>163</sup>
    - a. *Measures:* Measures may include energy code training, enforcement, and enhancement; building commissioning; district energy zoning; enacting zoning amendments to allow shared combined heat and power; geothermal, on-site generation; and small or larger scaled solar and wind generation facilities.
    - b. *Indicators:* These could be amended or added ordinances; permits issued, facilities constructed; reduced per household energy consumption, reduced square footage per residential unit and employee spaces, etc.
  4. *Remediating Distressed Properties:* In many urban areas where increased populations should reside, there are neighborhoods that contain a high percentage of vacant, distressed, foreclosed, tax-delinquent, or tax foreclosed properties.<sup>164</sup> These areas

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163. See generally EPA, SUSTAINABLE DESIGN & GREEN BUILDING TOOLKIT FOR LOCAL GOVERNMENTS (2010), available at <http://www.epa.gov/region4/recycle/green-building-toolkit.pdf>.

164. See generally, NAT'L VACANT PROPERTIES CAMPAIGN, VACANT PROPERTIES: THE TRUE COST TO COMMUNITIES (2005), available at <http://www.smartgrowthamerica.org/documents/true-costs.pdf>.

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must be improved to facilitate development in nearby business districts, transit station areas, and other priority growth areas. They also provide an opportunity to retain the existing residents of such areas in improved, but still affordable, housing.<sup>165</sup>

- a. *Measures*: Localities could, among other things, adopt nuisance abatement laws; strengthen code enforcement in target areas; simplify demolition permit processes; modify or enact vacant property and rental property registration laws; create a land bank; rehabilitate properties; return properties to tax rolls; and adopt tax credits and abatements.
  - b. *Indicators*: Relevant indicators could be the number of properties brought up to code; the number of dilapidated buildings demolished; the number of units rehabilitated; and an increase in code-compliant affordable housing units.
5. *Protecting Agricultural Lands and Farming in Rural Areas*: Increased population requires more food production, which can be more sustainable if located within reasonable distances from population centers.<sup>166</sup>
- a. *Measures*: Localities could remove the barriers to full use of agricultural land; create proactive agricultural zones; allow multiple uses of agricultural lands; create tax caps on agriculture value; and provide assistance for getting governmental subsidies for conservation, among other measures.
  - b. *Indicators*: the measures will be reflected in the number of farms in operation; the number of acres in production; the volume of crops and animals produced; and the gross value of sales.
6. *Waterfront Redevelopment*: Many communities have waterfront areas that are seen as key to their economic

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165. See SARAH TREUHAFT ET AL., *EQUITABLE DEVELOPMENT TOOLKIT: RECLAIMING FORECLOSED PROPERTIES FOR COMMUNITY BENEFIT 4* (2009), available at [http://www.policylink.org/atf/cf/%7B97c6d565-bb43-406d-a6d5-eca3bbf35af0%7d/edtk\\_foreclosed%20properties\\_final\\_8.26.09.pdf](http://www.policylink.org/atf/cf/%7B97c6d565-bb43-406d-a6d5-eca3bbf35af0%7d/edtk_foreclosed%20properties_final_8.26.09.pdf).

166. See Brian Clark Howard, *Urban Farming is Growing a Green Future*, NAT'L GEOGRAPHIC, <http://environment.nationalgeographic.com/environment/photos/urban-farming/> (last visited Nov. 5, 2013).

development.<sup>167</sup> Now, in light of the rising sea levels, storm surges, and increased flooding in many areas, these areas are vulnerable and need new measures to protect them.

- a. *Measures*: Communities could be rezoning waterfronts to accommodate, among other things, the rising sea levels; allowing water compatible land uses; encouraging surface water transportation, and development requirements to protect supportive infrastructure and buildings from flooding and wind damage.
  - b. *Indicators*: Relevant indicators may include waterfront development protected by hard construction projects; acres reclaimed from vulnerable locations; rezoning of waterfront land,; and changed regulations to discourage development in vulnerable places.
7. *Enhancing Sequestration and Green Infrastructure*: Approximately fifteen percent of the nation's carbon dioxide emissions are sequestered by the forests, trees, and agricultural soil.<sup>168</sup> These resources need to be protected and enhanced. For new populations to find denser developed areas livable, they must be sheltered and shaped by green infrastructure that cools, shades, and enlivens their developed spaces.
- a. *Measures*: To achieve the objective, communities could enact tree preservation or timber harvesting ordinances; adopt local environmental regulations to protect steep slopes, ridgelines, scenic areas, habitats, watersheds, and wetlands; and amend zoning, site plan and subdivision regulation to ensure low impact development, etc.
  - b. *Indicators*: These could be LIDAR (Light Detection and Ranging) score increases (measures sequestration capacity of undeveloped land); an increase in the acres of open space protected through acquisition; the transfer of development rights and purchase of development rights; and regulations that protect

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167. See generally N.Y. DEP'T OF STATE, MAKING THE MOST OF YOUR WATERFRONT: ENHANCING WATERFRONTS TO REVITALIZE COMMUNITIES (2009), available at [http://www.dos.ny.gov/communitieswaterfronts/pdfs/Guidebooks/lwrp/LWRP\\_guidebook.pdf](http://www.dos.ny.gov/communitieswaterfronts/pdfs/Guidebooks/lwrp/LWRP_guidebook.pdf).

168. See SPRAJCAR, *supra* note 21, at 6.

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environmental features from adverse impacts of development.

8. *Resiliency and Adaptation*: Sustainable development included adapting to climate change, which includes higher temperatures, sea level rise, storm events, flooding, and the need to consume less energy.<sup>169</sup> All areas, including developed waterfronts, must be rethought to become resilient to these changes.
  - a. *Measures*: These include regulations and process to limit development in areas vulnerable to sea level rise and storm surges; adopting stormwater, watershed, and wetlands regulations; adopting the latest floodplain maps and zoning to protect development in floodplains and coastal waterfronts; and disaster response and recovery actions.
  - b. *Indicators*: reduced construction in storm sensitive areas; less stormwater runoff; and less property damage during flood events.

#### CONCLUSION: TOWARD IMPLEMENTATION

One of the difficulties in creating a certification program is the enormous diversity among communities, ranging from sparsely settled rural areas, developing suburban areas, and older suburban communities, to dense urban neighborhoods. Another problem is the diversity of state and federal agencies and organizations that could use the certification system and the difficulty of achieving consensus among them given their varying interests in sustainable development. A third concern is the extensive effort required to review and approve measures approved by individual communities and to award credits to them. These concerns, along with others, are contemplated by the study of urban typology.<sup>170</sup> Urban typology is a method of classifying municipalities by first “identifying the dimensions along which cities vary in a relatively uniform way” and then by “forming homogenous groups of cities on the basis of these dimensions jointly

169. *Future Climate Change*, EPA, <http://www.epa.gov/climatechange/science/future.html> (last visited Oct. 18, 2013).

170. Valerie Moye, A Multi-Disciplinary Review of Urban Typologies and Their Utility to Sustainable Urban Development 1 (Dec. 11, 2012) (unpublished manuscript) (on file with author).



considered.”<sup>171</sup> This complexity raises the valid concern that a comprehensive, standardized certification program may not accommodate the individualized needs, assets, and priorities of every community.

Realizing that these problems are an impediment to sustainable development at the local level, the State of California, with the help of the EPA’s Smart Growth Implementation Assistance Program, created a guidance document titled *Strategies for Sustainable Communities*,<sup>172</sup> which utilizes the study of Urban Typology to provide a “starting point for local governments in identifying and developing policies and programs that improve community sustainability.”<sup>173</sup> At the State level, California’s sustainability goals are embodied in a range of programs such as AB-32 and SB-375,<sup>174</sup> which focus on improving air quality, protecting natural resources and agricultural land, increasing availability of sustainable housing, and improving infrastructure systems.<sup>175</sup> These programs recognize that “[l]ocal governments have broad influence and, in some cases, exclusive authority over activities that contribute to significant direct and indirect greenhouse gas emissions through their planning and permitting processes, local ordinances, outreach and education efforts, and municipal operations.”<sup>176</sup> While there is no shortage of guidance on measures to increase sustainability through these programs, the problem is that “local governments may struggle to identify and implement the strategies that are the highest priorities given their size, geographic location, economic base, transportation system, and demographic characteristics.”<sup>177</sup> In response to this issue, California’s *Strategies for Sustainable Communities* provides “a gateway to existing resources” organized around a framework of ten different community types defined by factors such as: as population, geographic location, average income, economic base, transit system,

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171. *Id.* (manuscript at 1) (citing Grady Bruce & Robert Witt, *Developing Empirically Derived City Typologies: an Application of Cluster Analysis*, 12 SOC. Q. 238–246 (1971)).

172. See GOVERNOR’S OFFICE OF PLANNING & RESEARCH, STATE OF CAL., *STRATEGIES FOR SUSTAINABLE COMMUNITIES: A GUIDEBOOK BASED ON CALIFORNIA COMMUNITY TYPES*, at v (2010), available at <http://opr.ca.gov/docs/StrategiesforSustainableCommunities.pdf>.

173. *Id.* at 3.

174. *Id.* at 4.

175. *Id.*

176. *Id.* at 4 (internal quotation marks omitted).

177. *Id.* at 5.

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and street networks.<sup>178</sup> This allows each community type to better identify its challenges, core sustainability goals, and relevant strategies.

Notwithstanding the issues raised by urban typology, a certification system such as the one described above can be designed to allow communities to select objectives and earn points based on their circumstances, and to begin their efforts at ensuring that private sector development is sustainable while respecting the limits of local capacity, available funding, and local priorities. Rural areas can, for example, mitigate climate change by protecting and expanding the sequestering environment, while urban communities with transit can promote transit oriented development through zoning to reduce vehicle miles travelled. Both initiatives mitigate climate change and create the types of settlements that meet the needs of their respective communities and the nation's expanding population. Under this approach, open space funds can be directed to communities that earn credits under the objective of enhancing sequestration. State agency decisions to permit communities to form land banks can consider whether those communities have adopted measures to remediate distressed properties, and programs that fund waterfront redevelopment can gauge to what extent communities have selected and followed measures in that category.

The advantage of the envisioned certification program is that it addresses the disparity of types of municipalities by offering a range of objectives and measures for them to choose from given local interests in particular aspects of sustainable development. This inherent flexibility accommodates municipalities in terms of their individualized challenges, abilities, and priorities.

Just because local governments are *enabled* to enact land use regulations and adopt policies that further the interests of state and federal programs aimed at sustainable development, does not mean that they will use their legal authority effectively. If the objective is to truly urge and enable localities to do all they can to mitigate and adapt to climate change and ready themselves for the new demographic cohorts over the next several decades, the certification system must be comprehensive and supported by state and federal resources. States can enable local compliance by promulgating model plan components and land use laws, providing technical assistance to communities to facilitate their adoption, and by funding communities

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178. *Id.*

that are properly certified. Federal agencies can help in much the same way.

One powerful method of using such a certification system is to see it as a method of coordinating federal, state, and local sustainability initiatives. One of the livability principles of the federal Sustainable Communities Initiative urges that federal policies and investment be leveraged.<sup>179</sup> It aspires to “[a]lign federal policies and funding to remove barriers to collaboration, leverage funding, and increase the accountability and effectiveness of all levels of government to plan for future growth, including making smart energy choices such as locally generated renewable energy.”<sup>180</sup>

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179. *About Us*, SUSTAINABLE COMMUNITIES, <http://www.sustainablecommunities.gov/aboutUs.html> (last visited Nov. 5, 2013)

180. *Id.*